1. A radio receiver, comprising:

an envelope detector configured to detect the amplitude of a received signal and generate a waveform representative of the envelope of the received signal; and

a sign detector configured to determine a sign associated with a data bit encoded on the received signal.

- 2. The radio receiver of claim 1, further comprising a filter coupled with the envelope detector, the filter configured to filter the waveform generated by the envelope detector.
- 3. The radio receiver of claim 2, further comprising an analog-to-digital converter coupled to the filter, the analog-to-digital converter configured to convert the filtered waveform to a digital signal.
 - 4. The radio receiver of claim 2, wherein the filter is a low pass filter.
- 5. The radio receiver of claim 4, wherein the filter is further configured to provide DC removal for the waveform.
- 6. The radio receiver of claim 1, wherein the sign detector comprises a limiter configured to generate a resulting bit stream.

- 7. The radio receiver of claim 6, wherein the sign detector further comprises circuitry coupled with the limiter, the circuitry configured to detect a double positive, or double negative, in the resulting bit stream.
 - 8. A receiver, comprising:

an antenna configured to receive a RF signal;

a filter coupled to the antenna, the filter configured to filter the received RF signal;

a amplifier coupled with the filter, the amplifier configured to amplify the filtered RF signal; and

a radio receiver coupled with the amplifier, the radio receiver comprising:

an envelope detector configured to detect the amplitude of a received signal and generate a waveform representative of the envelope of the received signal; and

a sign detector configured to determine a sign associated with each data bit encoded on the received signal.

- 9. The receiver of claim 8, wherein the radio receiver further comprises a filter coupled with the envelope detector, the filter configured to filter the waveform generated by the envelope detector.
- 10. The receiver of claim 9, wherein the radio receiver further comprises an analog-to-digital converter coupled to the filter, the analog-to-digital converter configured to convert the filtered waveform to a digital signal.

- 11. The receiver of claim 9, wherein the filter is a low pass filter.
- 12. The receiver of claim 11, wherein the filter is further configured to provide DC removal for the waveform.
- 13. The receiver of claim 8, wherein the sign detector comprises a limiter configured to generate a resulting bit stream.
 - 14. The receiver of claim 13, wherein the sign detector further comprises circuitry coupled with the limiter, the circuitry configured to detect a double positive, or double negative, in the resulting bit stream.
 - 15. The receiver of claim 8, wherein the amplifier is a low noise amplifier.
 - 16. The receiver of claim 8, wherein the filter coupled to the antenna is a band pass filter.
 - 17. The receiver of claim 8, further comprising baseband circuitry configured to receive the digital signal from the analog-to-digital converter and sign information from the sign detector and to decode the data bits base don't eh digital signal and sign information.
 - 18. A method of receiving data in a wireless communication network, comprising:

receiving an RF signal;

generating a waveform based on the envelope associated with the received

RF signal; and

detecting a sign for data bits encoded on the received RF signal.

- 19. The method of claim 18, further comprising filtering the received RF signal and amplifying the received RF signal.
- 20. The method of claim 19, wherein filtering the received RF signal comprises band pass filtering the received RF signal.
- 21. The method of claim 19, wherein amplifying the received RF signal comprises using a low noise amplifier to amplify the received RF signal.
- 22. The method of claim 18, further comprising low pass filtering the waveform generated based on the envelope associated with the received RF signal.
- 23. The method of claim 22, further comprising converting the filtered waveform to a digital signal.
- 24. The method of claim 23, further comprising decoding the data bits encoded on the received RF signal using the digital signal and sign information related to the data bits.
 - 25. A radio receiver, comprising:a band pass filter configured to filter a combined signal;

a clocked comparator coupled with the band pass filter, the clocked comparator configured to compare the filter combined signal to a ground reference when the comparator is enabled by a clock signal;

a digital-to-analog converter coupled with the clocked comparator, the digital-to-analog converter configured to convert the output of the clocked comparator to an analog signal; and

a combiner configured to receive a RF signal and combine it with the analog signal generated by the digital-to-analog converter in order to generate the combined signal.

- 26. The radio receiver of claim 25, further comprising filtering and decimation circuitry configured to filter and decimate the output of the clocked comparator.
- 27. The radio receiver of claim 25, further comprising a clock signal configured to clock the clocked comparator at a rate required to achieve a selected effective number of bits at the output of the filtering and decimation circuitry.
- 28. The radio receiver of claim 25, wherein the combiner is a passive combiner.
- 29. The radio receiver of claim 25, further comprising a plurality of clocked comparators coupled to the band pass filter, each of the clocked comparators configured t be activated on a different phase of a clock signal and a

combiner coupled to the plurality of clocked comparators, the combiner configured to combine the outputs of the clocked comparators.

- 30. The radio receiver of claim 29, wherein the digital-to-analog converter is coupled to the plurality of clocked comparators via the combiner.
 - 31. A receiver, comprising:

an antenna configured to receive a RF signal;

a filter coupled to the antenna, the filter configured to filter the received RF signal;

a amplifier coupled with the filter, the amplifier configured to amplify the filtered RF signal; and

a radio receiver, comprising:

a band pass filter configured to filter a combined signal;

a clocked comparator coupled with the band pass filter, the clocked comparator configured to compare the filter combined signal to a ground reference when the comparator is enabled by a clock signal;

a digital-to-analog converter coupled with the clocked comparator, the digital-to-analog converter configured to convert the output of the clocked comparator to an analog signal; and

a combiner configured to receive a RF signal and combine it with the analog signal generated by the digital-to-analog converter in order to generate the combined signal.

- 32. The receiver of claim 31, wherein the radio receiver further comprises filtering and decimation circuitry configured to filter and decimate the output of the clocked comparator.
- 33. The receiver of claim 31, wherein the radio receiver further comprises a clock signal configured to clock the clocked comparator at a rate required to achieve a selected effective number of bits at the output of the filtering and decimation circuitry.
- 34. The receiver of claim 31, wherein the combiner is a passive combiner.
- 35. The receiver of claim 31, wherein the radio receiver further comprises a plurality of clocked comparators coupled to the band pass filter, each of the clocked comparators configured t be activated on a different phase of a clock signal and a combiner coupled to the plurality of clocked comparators, the combiner configured to combine the outputs of the clocked comparators.
- 36. The receiver of claim 35, wherein the digital-to-analog converter is coupled to the plurality of clocked comparators via the combiner.
- 37. A method A method of receiving data in a wireless communication network, comprising:

band pass filtering a combined signal;

generating a digital signal form the filtered combined signal by comparing the filtered combined signal to a ground reference;

converting the digital signal to an analog signal; and combining the analog signal with a received RF signal in order to generate the combined signal.

38. The method of claim 37, further comprising comparing the combined signal to the ground reference at a rate designed to produce a selected effective number of bits from the combined signal.